GOVERNMENT-INDUSTRY — PARTNERS IN EDUCATION

APMC Industry Graduates Join DSMC Staff, Faculty for 1998 Industry Managers Field Trip

Former Students Relish Opportunity to Observe First-hand the Products and Processes Only Recently Studied in the Classroom

GEORGE MERCHANT . JANET VINCENT . GREG CARUTH

mportant lessons can be learned when program managers meet with the soldiers, sailors, airmen, and Marines who depend on the weapons systems they develop. Seventeen APMC Industry graduates — representing nine Defense industry corporations and seven DSMC faculty and staff members, including DSMC Commandant Navy Rear Adm. Leonard Vincent — were given that opportunity in April when they participated in DSMC's 1998 Industry Managers Field Trip.

DSMC's industry students enjoy unique access to military installations and feedback from the user's perspective.

THE BRIDGE AREA, ABOARD THE USS COMSTOCK.

PICTURED FROM LEFT: NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT; DON TEAGUE; NAVY CMDR.

GREGG JACKSON,
COMMANDING OFFICER,
USS COMSTOCK, LSD-45;
JANET KENDRICKS.



Merchant and Vincent are the Associate and Assistant Directors, respectively of the Advanced Program Management Course, School of Program Management Division, DSMC. Caruth is the Director, Visual Arts and Press Department, Division of College Administration and Services, DSMC. The details of the trip were initially recorded by several of the industry travelers.



THE BRIDGE AREA. ABOARD THE USS COM-STOCK. PICTURED FROM LEFT: NAVY CMDR GREGG JACKSON, COM-MANDING OFFICER. USS COMSTOCK, LSD-45: JANET KENDRICKS; JON BUCKINGHAM.



THE BRIDGE AREA. ABOAR D THE USS COM-STOCK. PICTURED FROM LEFT: NAVY CAP T. BOB VERNON, DEAN. SCHOOL OF PROGRAM MANAGEMENT DIVISION, DSMC: NAVY LT CON-VENTO: MARK PASIK.



NAVY CAPT. JON McTighe, Chief of STAFF FOR THE NAVAL SPECIAL WARFARE COMMAND IN SAN DIEGO, BRIEFS INDUSTRY MANAGER S ON THE NAVY SEALS' MISSION AND TRAINING.



MARINE TECHNICIA N AT THE MARINE CORPS AIR COMBAT CENTER, TWENTY NINE PALMS, CALIF., EXPLAINS FEA-TURES OF THE PIONEER UNMANNED AERIAL VEHICLE. PICTURED FROM LEFT: GEORGE MERCHANT. ASSOCIATE DIRECTOR. ADVANCED PROGRAM MAN-AGEMENT COURSE, DSMC; TRICHTER: GREG BADER: JON BUCKINGHAM: JIM WOOLEY.

As recent APMC graduates, these industry managers and former students relished the opportunity to observe firsthand the products of the acquisition process they had recently studied in the classroom.

DSMC's industry students enjoyed a unique opportunity of access to these military installations and to feedback from the user's perspective. By participating in the College-sponsored Industry Managers Field Trip, they were able to cap their education in the new government acquisition policies by gaining first-hand information from the customer's perspective.

Another added benefit of the trip was the shared comaraderie and increased teaming between industry and government managers who participated. As an extra-curricular activity - one that industry managers (former APMC students) returned to DSMC to experience - the trip enriched their defense industry overall knowledge and gave them a heightened awareness of what it actually means to meet, or fail to meet, the customer's expectations.

Over the years, student feedback consistently reflects feedback that many APMC students from industry typically characterize the Industry Managers Field Trip as an extremely valuable experience at DSMC - an opportunity that cannot be emulated in courses at non-military universities and colleges. This article is an attempt to impart these experiences to you, the industry manager, and encourage you to seek out what we refer to as "the DSMC educational experience."

San Diego, Coronado, **LCAC Simulators**

Arriving at Naval Station San Diego, Naval Surface Forces Base, Destroyer Squadron One, the trip began with a tour of the USS Wadsworth, FFG 9, of the Oliver Hazard Perry class of Guided Missile Frigates. Navy Cmdr. D.W. Keiler, Commanding Officer of the Wadsworth, provided an overview of the ship, its capabilities, typical missions, and manning. Afterward, several of the ship's JODY WILKERSON; JOHN AL- officers gave the DSMC group a brief

rundown on the Wadsworth's layout and primary systems:

- Torpedo Handling and Launching Systems
- Ship's Stores, Spares and Provisioning System
- · Berthing and Galley Areas
- · Engineering Spaces
- Combat Information Center (CIC)
- · The Bridge
- · Electronic Warfare Capabilities
- Helicopter and Antisubmarine Systems
- · Gun and Missile Launching Systems

At the conclusion of the *Wadsworth* visit, ship's officers left the group with a clear understanding of the pressing need for industry to consider maintenance reduction and Total Life Cycle Cost in any equipment destined for the fleet.

At the Naval Amphibious Base, Coronado, Navy Capt. Thomas Hayes, Commanding Officer of the Expeditionary Warfare Training Group, Pacific, assisted by Navy Lieutenants Stowell and Hillier, led the group on tours of Coronado's diversified facilities, followed by briefings and training videos on the importance and significance of Littoral operations, the mission of Expeditionary Forces, and typical operations and equipment used.

Next on the agenda was a tour of Coronado's training center for small craft engines, Boatswain and Coxswain training, and the operator-training simulator for the huge Landing Craft, Air Cushioned, (LCAC) hovercraft (discussed more fully in subsequent paragraphs).

Invited to participate in a training simulation in the LCAC operation simulator, several industry managers characterized the simulated training as highly realistic and informative.

NAVAL AIR STATION
NORTH ISLAND (SECOND
FROMLEFT), DISCUSSES
NAVY MUNITIONS WITH
NAVY REAR ADM. "LENN"
VINCENT, DSMC
COMMANDANT; FRANK
SWOFFORD, DSMC FORRESTAL-RICHARDSON
MEMORIAL INDUSTRY
CHAIR; JOHN ALTRICHTER;
PA M MITCHELL; DIVID
PHILLIPS.

MARINE LT. COL. GARY WARNER, MARINE CORPS AR COMBAT CENTER. TWENTY NINE PALMS. CALIF., EXPLAINS THE 26-HORSEPOWER, 2-CYCLE GASOLINE ENGINE OF THE PIONEER UNMANNED AER-IAL VEHICLE. PICTURED FROMLEFT: WARNER: ANDY MUNZER: GREG BADER: GEORGE MERCHANT, AS-SOCIATE DIRECTOR. ADVANCED PROGRAM MANAGEMENT COURSE, DSMC.



JODY WILKERSON
DISCUSSES THE LCACEN—
GINE WITH NAVY LT. GIDR.
RODACKI, EXECUTIVE OFFICER OF ASSAULT GRAFT
UNIT (ACU) 5 AT CAMP
PENDLETON, GALIF.









At North Island, Talks with Experienced Pilots

At HSLT 10, Replacement Air Group, Naval Air Station, North Island, Navy Capt. David Landon explained the SH60-B Fleet Replacement Squadron (FRS) mission — to teach pilots to fly and fight. With a primary focus on safety, as demonstrated by their 90,000 hours of accident-free flying, Landon emphasized that training is a process, and noted philosophically that "You make a living out of what you get, but you make a life out of what you give."

Today, 85 percent of the unit's mission is antisurface warfare. Other missions include search and rescue, medical evacuation, and vertical replenishment.

Following a command overview, the DSMC group visited one of North Island's aircraft hangars for a hands-on look at one of the unit's well-worn "birds." Later discussion of past missions with experienced, multiple-deployment pilots gave members of the DSMC group a valuable user perspective in the areas of readiness, combat

capability, and repair and maintenance support.

Naval Special Warfare Center — SEAL Training and Underwater Demo

Not too many civilian managers get an inside look at any type of special warfare training, so this leg of the trip certainly captured the group's attention. The Special Warfare Command (SPECWARCOM) Chief of Staff, Navy Capt. John McTighe, and the Center Executive Officer, Navy Cmdr. Dave Lan-

DAVID PHILLIPS ATOP THE M-88 RECOVERY VEHI-CLE WITH A MARINE FROM MARINE CORPS AR GROUND COMBAT CENTER, TWENTY NINE PALMS, CALIF.



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dis, presented a command briefing outlining the Navy SEALs' (Sea-Air-Land Teams) special warfare mission. Outside, SEAL students near graduation performed calisthenics while new students began work on an extreme obstacle course.

USS Comstock, LSD-45 — Moving the **Big Guys**

The DSMC group was welcomed aboard the USS Comstock (LSD 45) — a U.S. Marine transport ship that can carry soldiers, armored vehicles, and up to four LCACs — by Navy Cmdr. Gregg Jackson, the Comstock's Commanding Officer.

A tour of the *Comstock* included the Bridge, the CIC (to be renovated to accommodate the RAM-SSDD system), the LCAC well [which, the ship's officers noted, could double as a swimming pool and a fishing pond], and the boat/landing deck

Ship Handling Simulator Generates New Appreciation for Steering Big Ships

Retired Navy Capt. Robert Lynch of Marine Safety International (MSI) welcomed the group to the Ship Handling Simulator facility at the Naval Station National City. Featuring four simulators (two full-

up bridges, one docking, and one vessel traffic simulator), each simulator at the National City facility can operate independently or interactively for ships ranging from 133-foot mega-yachts to 265.000-ton tankers.

After touring the facility, the group went inside an operational simulator, programmed to show a Navy ship navigating through fog. The simulator has a

AN ENGINE TECHNICIAN
(LEFT) AT MARINE WING
SUPPORT SQUADRON 11,
MARINE CORPS AIR STATION, MRAMAR, CALIF, EXPLAINS ENGINE
MAINTENANCE TECHNIQUES
TO GREG BADER.

225-degree by 35-degree screen that can look in various directions. Actually being in the simulator, surrounded by the ship's noise, and seeing how ships respond to steering commands, gave the group a better appreciation for the skills involved in navigating ships.

ACU 5, Camp Pendleton — Riding on Air

Arriving at Assault Craft Unit (ACU) 5, the group viewed a video of the Landing Craft, Air Cushioned (LCAC) hovercraft. Navy Capt. Ned Herbert, Commanding Officer of ACU 5, explained the unit mission — to provide operational commanders with fully manned, fully trained, and well-maintained LCAC support.

This air-cushioned craft provides for the high-speed transfer of personnel, equipment, and supplies from ship-to-shore, as well as over-the-beach, fully amphibious landing carrying a 60- to 75-ton payload. Its major components include: engine modules, lift fans, skirt, propellers, bow thrusters, loading ramp, and command module. Reaching over 70 percent of the world's coastline, the LCAC is a major improvement over previous landing craft that could only reach 15 percent of the coastline.

The DSMC group performed a close-up inspection of the LCAC on dry land and



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aviator, is a rifleman, and their
primary mission is direct support
to the Ground Units — the
customer being the infantryman.

viewed a demonstration as it traversed the beach and surf. In the LCAC maintenance area, they observed components up-close, and heard maintenance personnel describe their challenges. Crew members were on hand during the inspection and demonstration to describe LCAC features and answer any questions.

A chance to sample the local cuisine was an unexpected benefit of the Pendleton visit. The DSMC group was treated to some good old fashioned Navy chow in the dining facility. In fact, the group was

so well fed [including the best cookies of the entire trip], they gave the entire dining facility staff a standing ovation!

MCAS — The BRAC Challenge

Marine Brig. Gen. William A. "Bill" Whitlow, Assistant Wing Commander, 3rd Marine Air Wing, Marine Corps Air Station (MAW MCAS), gave the command briefing, followed by Marine Maj. Ross Scanio, current Operations Officer, Marine Aircraft Group (MAG) 11. Scanio described the U.S. Marine Corps as "America's 911 force" and stressed that every Marine, including every Marine aviator, is a ri-



JANET KENDRICKS AND MARK PASIK WITH MARINE MAJ. PATCH FROM MARINE CORPS AIR GROUND COMBAT CENTER, TWENTY NINE PALMS, CALIF.



ON LOOK AT THE M-88 PALMS, CALIF.



NAVY PILOT (RIGHT) AT THE HSLT 10. REPLACE-MENT AIR GROUP AT NAVAL AIR STATION NORTH ISLAND. DISCUSSES FEATURES OF THE SH-60B HELICOPTER. ALSO PIC-TURED FROM LEFT: NAVY CAPT. BOB VERNON. DEAN, SCHOOL OF PROGRAM MANAGEMENT DIVISION, DSMC: CHERL BARBAROW



A CREW CHIEF (RIGHT) FROM MARINE FIGHTER/ATTACK SOUADRON 235 AT MA-RINE CORPS AIR STATION. MIRAMAR, CALIF, SHOWS JANET KENDRICKS THE LANDING GEAR OF AN F/A-18 AIRCRAFT.

fleman, and their primary mission is direct support to the Ground Units – the customer being the infantryman.

Marine Lt. Col. George Martin then provided DSMC with a briefing on Base Realignment and Closure (BRAC) and the transition of the Air Station from the Navy to the Marine Corps.

Following Martin's BRAC presentation, the group met with Marine 2nd Lt. Dan Colvin. Maintenance Officer for the GE-F404 Turbofan Engine. Colvin took them on a tour of the maintenance facilities and explained the levels of maintenance done at the MCAS. The shop is qualified to perform both scheduled and unscheduled maintenance, at the Intermediate, Direct Support, and General Support levels.

Following the maintenance tour, Colvin escorted the group to the engine test facility to witness an F404 test, followed by a static display of the F/A-18.

Out to the Desert — MCAGCC

Marine Maj. Gen. Ron Richard, Commander, Marine Corps Air-Ground Combat Center (MCAGCC), and Marine Lt. Col. Scott Nelson, Operations Officer, MCAGCC, welcomed and briefed the DSMC group on the mission of the MCAGCC. They were particularly proud of the role the Center plays as the Marines Corps' unique live-fire training area for its ground forces.

At the Modeling and Simulation Center, Marine Maj. Robert Armstrong explained how units save time and funds by practicing fire and maneuver at the simulation center prior to actual live-fire exercises. The Modeling and Simulation Center is networked to similar sites at other Marine bases

Moving on to the Enhanced Equipment Allowance Pool (EEAP), Fred Bryant, Deputy Director, spoke of the challenges of the EEAP mission, followed by a thorough briefing on the M1A1 tank and the M88A2 recovery vehicle from Marine Mai. Patch, the Executive Officer of one of the two tank battalions in the active duty Marine Corps.

Visiting the Light Armored Vehicle (LAV) area, Marine 2nd Lt. Cockhill, assisted by the LAV operators and maintainers, briefed the group on the roles and capabilities of each of the five different LAVs currently in the Marine Corps inventory. Later, the group had the opportunity to ask questions, followed by hands-on time with the equipment and Marines.

At the conclusion of Cockhill's briefing, Marine Lt. Col. Gary Warner spoke on the mission and logistics challenges of the Pioneer Unmanned Aerial Vehicle (UAV). Carrying either a daylight or night vision video camera, the Pioneer is effectively used for low-risk reconnaissance missions.

NTC — Lots of Enthusiasm, Esprit de Corps

Army Col. J.D. Thurman kicked off the DSMC group's Army Day visit to the Fort Irwin National Training Center (NTC) with the NTC Command Briefing. Following the briefing, the DSMC Commandant, Navy Rear Adm. "Lenn" Vincent, noting the enthusiasm and esprit de corps of the soldiers said, "It's a great day to be a soldier," to which Thurman responded, "Every day is a great day to be a soldier!"

Civilians and military alike were impressed to see the enthusiasm and pride of the military on display.

NTC's mission is threefold: to provide realistic joint and combined arms training focused on developing soldiers, leaders, and units of America's Army for success on the 21st century battlefield; to maintain a safe environment and quality of life for the entire Fort Irwin community; and to provide a vital source of experience-based data and information to improve and train each fighting force, providing a realistic training environment for the 21st century battlefield.

NTC's comprehensive "Road to War" training includes: contingency-based scenarios; dedicated opposing force; instrumented battlefields; full-time observer controllers; doctrine-based training; live-fire training; joint training; and

MEMBERS OF THE

DSMC GROUP TOUR

MARINE WING SUPPORT
SQUADRON 11, MARINE
CORPS AIR STATION,
MIRAMAR, CALIF. PICTURED FROMLEFT:
DAVID PHILLIPS; JON
BUCKINGHAM; PON
WETMORE; JANET
KENDRICKS; JIM WOOLEY; PAUL LIOSIS.

AN ENGINE

MAINTENANCE TECHNICIAN (LEFT) AT MARINE

WING SUPPORT

SQUADRON 11, MARINE

CORPS AIR STATION, MIRAMAR, CALIF, EXPLAINS

THE ENGINE

MAINTENANCE FACILITIES

AND SHOWS AN ENGINE

MODULE TO ANDY MUNZER AND CHERI

BARBAROW.

VIEWING THE REBUILT
PARTS OF AN ENGINE AT
THE ENGINE
MAINTENANCE FACILITIES
OF MARINE WING SUPPORT SQUADRON 11,
MARINE CORPS AR STATION, MRAMAR, GALIF,
ARE AIR FORCE COL.
SA M BROWN, FORMER
DEAN, ACADEMIC PROGRAMS DIVISION, DSMC;
JON BUCKINGHAM;
PIERRE MONACELLI.

ARMY COL.J.D. THUR-MAN KICKED OFF THE GROUP'S ARMY DAY VISIT TO THE FORT IRWIN NATIONAL TRAINING CENTER (NTC) WITH THE NTC COMMAND BRIEF-ING.









training processes consisting of an afteraction review (AAR). The AAR is key to the training process.

The Center's philosophy emphasizes that "You can't train yourself." The need exists for training heavy forces for the high spectrum of conflict. According to NTC's briefing on OPFOR (Opposing Force), the intent is for brigades training at NTC to face the toughest force they could ever face.

Toward that end, the OPFOR uses actual threat equipment: BRDMs, BMPs, MT-12s, MT-LBs, BMP-2s, and ACRVs. Other equipment has been visually modified to emulate threat equipment, including T-80, BMP, Hind, BRDM, 2A45

(AT Gun), ASETIV-S14, SA8, SA9, and ZSUs. Training exists for high-end conflict with direct fire fights and tank-ontank engagements.

At NTC, according to Thurman, there is no shame in losing the conflict; the ultimate intent of the training is that it be an invaluable learning experience.

Fort Irwin has trained 724,000 troops since 1982. There are 10 yearly rotations of combined-arms forces including infantry, artillery, armor, aviation, air force, chemical, logistics, air defense, engineer, military police, signal corps, electronic warfare, military intelligence, and special operations forces.

Moving on to NTC's state-of-the-art Star Wars facility, which houses the command and control of the training exercise, the DSMC group learned about the Multiple Integrated Laser Engagement System (MILES) and viewed a demonstration of its capabilities. MILES [for today's warfighters who, for the most part, came of age during the proliferation of video and computer games], provides the world's largest game of laser tag.

During a warfighting exercise, each vehicle is outfitted with laser transmitter and receivers, GPS, and a main processor to provide interface. Direct fire conflict is simulated by offensive and defensive forces and their weapon systems. Select soldiers (typically forward



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ATTHE NATIONAL TRAINING
CENTER MILITARY INTELLIGENCE YARD, ARMY SGT
1ST CLASS OLIVER
EXPLAINED
FEATURES OF VARIOUS
SOVIET-STYLE TANKS AND
ARMORED VEHICLES TO THE
DSMC GROUP. PICTURED
FROM LEFT: NAVY REAR
ADM. "LENN" VINCENT,
DSMC COMMANDANT;
CHERI BARBAROW; PIERRE
MONACELLI; MARK PASIK;
ANDY MUNZER.

observers) are fitted with vests containing a smaller version of the MILES system.

Introducing the Center's OPFOR concept was Army Col. Swan, followed by Army Lt. Col. Wallace, who briefed the group on the 11th Armored Cavalry/60th Guards Motorized Rifle Division, NTC's robust opposing force that trains the principles of Army operations, and challenges the battlefield operating systems of U.S. Army brigades. The OPFOR players assume the role of Krasnovians, a nation hostile to U.S. interests. The doctrine is based on combined-arms operations, and the goal is to provide a near-peer competitor to the U.S. Army. They represent a known enemy with field

MARINE AIRCRAFT GROUP (MAG) 11 AIRCRAFT

Туре	Nickname	Role
FA-18	Hornet	Fighter
KC-130	Hercules	Refueling
AV-8B	Harrier	Attack, Vertical Take-off
CH-53E	Super Stallion	Heavy Lift Helicopter
CH-46E	Sea Knight	Medium Lift Helicopter
AH-1W	Super Cobra	Fire Support, Anti-Tank Helicopter
UH-1N	Huey	Airborne Command and Control
MV-22	Osprey (Future)*	Will replace CH-53 and CH-46 roles

DSMC INDUSTRY MANAGERS FIELD TRIP PARTICIPANTS - APRIL 1998 -

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Dr. James Price Dean, Research, Consulting, & Information Division

Associate Director, APMC George Merchant Janet Vincent Assistant Director, APMC Richard Mattox College Photographer

manuals and after-action reviews available to the Blue Forces (BLUEFOR).

Touring the C/203rd Military Intelligence yard with Army Sgt. 1st Class Oliver, the group learned that the yard provides training for the OPFOR in the employment of equipment, and provides a "technical intelligence" team to identify modifications to equipment in the field. Oliver provided details on Soviet, Chinese, and South African anti-aircraft guns, howitzers, mortars, tanks, trucks, radars, missile launchers, and armored tracked vehicles in the yard.

Now That We Have Your Attention!

As a long-term investment, DSMC views the Industry Managers Field Trip as a unique opportunity to increase government-industry teaming, and inspire industry managers and leaders to accelerate their own efforts at Acquisition Reform

Are you an industry manager interested in attending DSMC's Advanced Program Management Course? Don't miss this tremendous opportunity. Call today.

Normally, defense industry students desiring to take a course at DSMC would register through the Council of Defense and Space Industries Association (COD-SIA). Temporarily, however, the DSMC Registrar is registering potential industry students.

For more information on specific application procedures, catalog requests, or general information about DSMC courses or schedules, visit the DSMC Home Page at http://www.dsmc.dsm.mil or the Defense Acquisition University Home Page at http://www.acq.osd. mil/dau.

Those interested may also call the DSMC Registrar at the following numbers:

Toll Free: (888) 284-4906 Commercial: (703) 805-3003 DSN: 655-3003